**Path important notes**

**Lec1:**

Primary only in kidney > immunological mechanism

Minimal change common in children with good prognosis

Minimal change only we can see abnormality in electron microscope defect on foot proses in podocyte

Nephrotic syndrome: proteinuria, hypoalbonema, edema, hyperlipidemia

**Post-streptococcal G.N:**

Cross-reaction igG

Hyaline cast, subepithilail found humps > large granules

Nephritic syndrome: oliguria, hematuria, preorbital edema, hypertension

Common cause nephrotic syndrome in adult is membrouns

Lubus> systemic

Lipoid > minimal change only effect the kidney

**Lec2:**

**Cystitis:**

**Hemorrhagic cystitis:** adenoviruses infection, radiation, chemotherapy

**Follicular:** unknown cause

**Eosinophilic**: allergy condition “giant cell”, can be chronic

**Interstitial:** unknown cause can be autoimmune, “Hunner ulcer”, chronic, painful, “mast cell”, no bacteria found

**Polypoid:** edema, cause: catheter causes irritation

**Chronic:** persistent infection, inelasticity of bladder

**Pyelonephritis:**

Inflammation of the renal pelvis and renal interstitium.

One of the causes: congenital vesico-uretral reflux.

|  |  |
| --- | --- |
| Acute | Chronic |
| Enlargement  Not adherent  Pus > CT is yellowish | Contract  Adherent, fibrosis  Scaring, “not demarcated” |
| No change  Neutrophils cast in tubules  Acute supportive inflammation | Chane in all structure  “ Atrophy, hyaline cast\* **thyroidization**\* |
| Mid> recovery  Sever> renal failure  Some cases > pyelonephritis. | Hypertension  Chronic renal failure |

**Lec3:**

**Cortical adenoma**: the most common of benign

* Usually an incidental finding.
* Often seen in patients receiving long-term hemodialysis, also more common in kidneys scarred from chronic pyelonephritis.

No symptoms, no atypia, cuboidal cell

Have pappli or tubules

Renal oncocytoma:

Large cell small nuclei and promint nucleoli

**\*Have central scar**\* the color Mahogany brown

**Renal cell carcinoma:** \*hematuria\*

Most common in adult more in male than female

Sporadic more than familial

Most significant risk factor is cigarette

Characteristic: paraneoplastic syndrome> secreting ACTH

Early blood sepred

Most common metastasis in lung then bone

Most common is clear cell carcinoma

Worst prognosis is collecting duct carcinoma

**Clear cell:**

Familial> bilateral CT> golden yellow

**Lec4:**

**Papillary:**

Bilateral, good prognosis than the clear cell

Tubupapillary \***foamy histiocyte, psammoma**\*

Chromophobe:

Characteristic: prognosis better than clear cell, \*homogeneous, prominent cell\*

**Collecting duct:**

In medullary,

All tumors circumscribed except this tumor is invasive borders.

Have desmoplastic stroma, high grade atypia

**Wilms tumor (nephroblastoma):**

Most common in children, come with abdominal pain + hematuria

triphasic pattern, “blastoma primitive”

“Abortive tubules, abortive glumoral.